- 2 - Application Serial No. 10/588,993 Attorney Docket No. 0756-7715

The listing of claims will replace all prior versions, and listings, of claims in the application:

# **Listing of Claims:**

- 1.-2. (Canceled)
- 3. (Original) A light emitting element comprising:
- a first electrode:
- a second electrode; and
- a plurality of layers located between the first electrode and the second electrode.

wherein the plurality of layers comprises:

a first layer comprising a light emitting substance; and

a second layer for transporting a hole,

wherein the second layer comprises:

a carbazole derivative represented by General Formula (1); and

a metal oxide, and

[Chemical Formula 1]

$$R^2$$

$$R^5$$

$$R^3$$

$$R^4$$

$$(1)$$

wherein in the formula, R1 refers to hydrogen, halogen, a cyano group, an alkyl

group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and R<sup>2</sup> to R<sup>5</sup> is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an acyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a diarylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

#### 4. (Canceled)

- 5. (Currently Amended) A light emitting element comprising:
- a first electrode:
- a second electrode; and
- a plurality of layers located between the first electrode and the second electrode.

wherein light emission is performed when voltage is applied so that a potential of the first electrode is higher than that of the second electrode,

wherein the plurality of layers comprises:

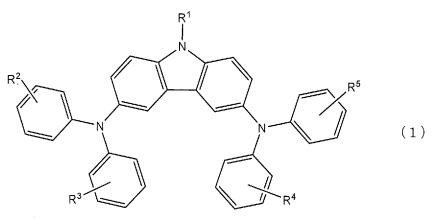
- a first layer comprising a light emitting substance; and
- a second layer which is in contact with the second electrode and is located between the second electrode and the first layer,

wherein the second layer comprises:

a carbazole derivative represented by General Formula (1); and

a metal oxide, and

[Chemical Formula 1]



wherein in the formula, R<sup>1</sup> refers to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and R<sup>2</sup> to R<sup>5</sup> is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an acyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a diarylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

- 6. (Previously Presented) A light emitting element comprising:
- a first electrode;
- a second electrode; and
- a plurality of layers located between the first electrode and the second electrode,

wherein light emission is performed when a potential of the first electrode is higher than that of the second electrode,

wherein the plurality of layers comprises:

a first layer comprising a light emitting substance;

a second layer located between the first electrode and the first layer, and

a third layer which is in contact with the second electrode and is located between the second electrode and the first layer,

wherein both of the second layer and the third layer comprise:

a carbazole derivative represented by General Formula (1); and a metal oxide, and

## [Chemical Formula 1]

$$R^2$$

$$R^5$$

$$R^3$$

$$R^4$$

$$(1)$$

wherein in the formula, R<sup>1</sup> refers to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and R<sup>2</sup> to R<sup>5</sup> is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an acyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

#### 7.-8. (Canceled)

9. (Original) A light emitting element comprising: a first electrode;

a second electrode; and

a plurality of layers located between the first electrode and the second electrode,

wherein the plurality of layers comprises:

a first layer comprising a light emitting substance; and

a second layer for transporting a hole,

wherein the second layer comprises:

a carbazole derivative represented by General Formula (1); and a substance for accepting an electron from the carbazole derivative, and

[Chemical Formula 1]

$$R^2$$
 $R^5$ 
 $R^3$ 
 $R^4$ 
 $R^5$ 

wherein in the formula, R¹ refers to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and R² to R⁵ is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an haloalkyl group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

### 10. (Canceled)

11. (Currently Amended) A light emitting element comprising:

a first electrode;

a second electrode; and

a plurality of layers located between the first electrode and the second electrode.

wherein light emission is performed when <u>voltage</u> is <u>applied</u> so that a potential of the first electrode is higher than that of the second electrode,

wherein the plurality of layers comprises:

a first layer comprising a light emitting substance; and

a second layer which is in contact with the second electrode and is located between the second electrode and the first layer,

wherein the second layer comprises:

a carbazole derivative represented by General Formula (1); and a substance for accepting an electron from the carbazole derivative, and [Chemical Formula 1]

$$R^2$$
 $R^5$ 
 $R^5$ 
 $R^3$ 
 $R^4$ 

wherein in the formula,  $R^1$  refers to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and  $R^2$ 

- 8 -

to R<sup>5</sup> is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an acyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, a dialkylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

- 12. (Previously Presented) A light emitting element comprising:
- a first electrode:
- a second electrode; and
- a plurality of layers located between the first electrode and the second electrode.

wherein light emission is performed when a potential of the first electrode is higher than that of the second electrode,

wherein the plurality of layers comprises:

- a first layer comprising a light emitting substance;
- a second layer located between the first electrode and the first layer, and
- a third layer which is in contact with the second electrode and is located between the second electrode and the first layer,

wherein both of the second layer and the third layer comprise:

- a carbazole derivative represented by General Formula (1); and
- a substance for accepting an electron from the carbazole derivative, and [Chemical Formula 1]

$$R^2$$
 $R^3$ 
 $R^5$ 
 $R^5$ 
 $R^5$ 
 $R^4$ 

wherein in the formula, R<sup>1</sup> refers to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocycle residue, and R<sup>2</sup> to R<sup>5</sup> is the same or different material and refer to hydrogen, halogen, a cyano group, an alkyl group having a carbon number of 1 to 20, an alkoxyl group having a carbon number of 1 to 20, an acyl group having a carbon number of 1 to 20, a haloalkyl group having a carbon number of 1 to 20, a diarylamino group having a carbon number of 1 to 20, a substituted or unsubstituted heterocycle residue, or a carbazolyl group.

- 13. (Previously Presented) The light emitting element according to any one of Claims 3, 5, and 6, wherein the metal oxide is one or a plurality of oxides of any transition metal of Group 4 to Group 12 in the periodic table.
- 14. (Previously Presented) The light emitting element according to any one of Claims 3, 5, and 6, wherein the metal oxide is one or a plurality of oxides of any transition metal of Group 4 to Group 8 in the periodic table.
- 15. (Previously Presented) The light emitting element according to any one of Claims 3, 5, and 6, wherein the metal oxide is one or a plurality of oxides selected from

the group consisting of molybdenum oxide  $(MoO_x)$ , vanadium oxide  $(VO_x)$ , ruthenium oxide  $(RuO_x)$ , tungsten oxide  $(WO_x)$ , rhenium oxide  $(ReO_x)$ , titanium oxide  $(TiO_x)$ , chromium oxide  $(CrO_x)$ , zirconium oxide  $(ZrO_x)$ , hafnium oxide  $(HfO_x)$ , and tantalum oxide  $(TaO_x)$ .

- 16. (Previously Presented) A light emitting device, comprising the light emitting element according to any one of Claims 3, 5, 6, 9, 11, and 12 as a pixel or a light source.
- 17. (Original) An electronic device, comprising the light emitting device according to Claim 16.